

# DRPC-100-CV DRPC-120-BT

■ Fanless DIN-Rail Embedded System

■ Intel® E3845 1.91GHz/Intel® N2800 1.86GHz Solution

## Features

### DRPC-120-BT

- Intel® Atom™ E3845 1.91GHz
- 1 x 2.5" SATA HDD/SSD drive bay
- DDR3L 1.35V SO-DIMM support
- Programmable OLED display
- 8-bit digital I/O (4-bit inputs/outputs)
- IEI iRIS-2400 solution



### DRPC-100-CV

- Intel® Atom™ N2800 1.86GHz
- Serial, CAN-bus and digital I/O interfaces with isolation protection
- 1 x PCIe Mini expansion slot for add-on function purpose
- Programmable OLED display



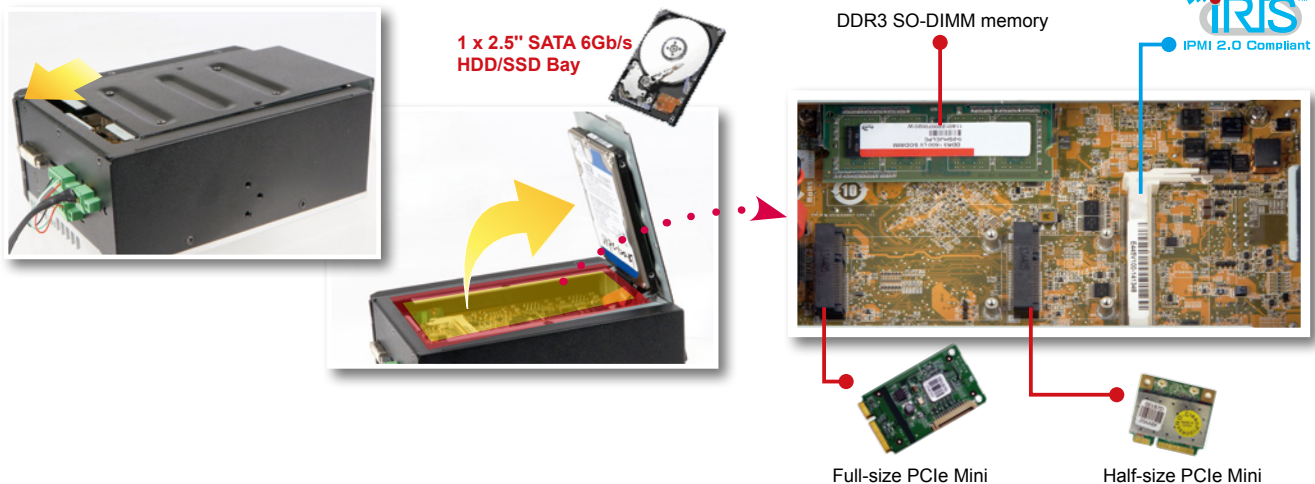
DRPC-120-BT



DRPC-100-CV

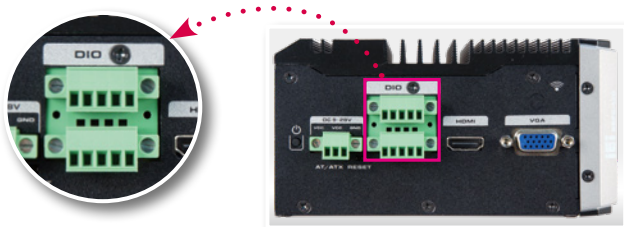
## User Friendly Installation

The DRPC-120 is designed with an easy removable back cover for users to install SATA HDD, PCIe Mini cards, DDR3 memory modules or iRIS-2400 modules conveniently.



## 8-Channel Digital I/O

The DRPC-120 is outfitted with 8-channel (4-bit input and 4-bit output) digital I/O to provide digital input and output signals for control of industrial devices.



## Fanless

The DRPC-100/120 series provides the best components for generating less heat, while maintaining high system performance. With the fanless design, the DRPC-100/120 reduces system failure caused by fans and extends the lifetime of the device.



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## iRIS Solution

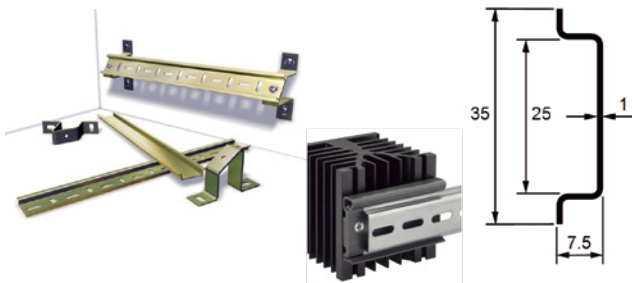


IPMI 2.0 Compliant

By installing the IEC iRIS-2400 module, the DRPC-120 is capable to complete your IoT application through the advanced remote control features, such as power management and control, remote KVM for device status monitoring, sending active alerts and warning messages by e-mail or SMS.

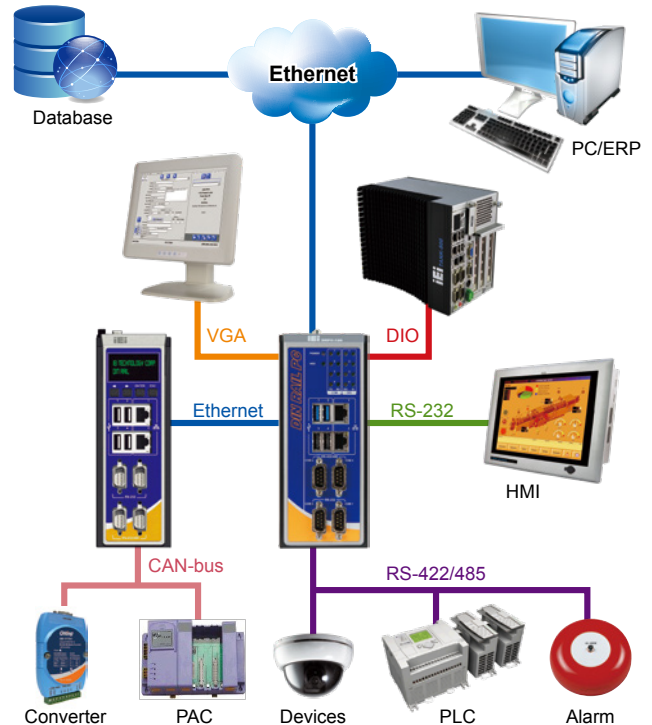
## DIN Rail Standard

A DIN rail is a metal rail of a standard type widely used for mounting circuit breakers and industrial control equipment inside equipment racks. These products are typically made from cold rolled carbon steel sheet with a zinc-plated and chromated bright surface finish. The term derives from the original specifications having been published by Deutsches Institut für Normung (DIN) in Germany, which have since been adopted as European (EN) and international (ISO) standards.



## Communication Gateway

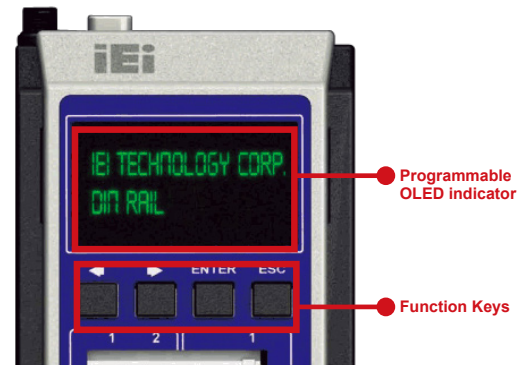
For high surge ESD automation environments, the DRPC-100 provides isolated digital IO, CAN-bus and serial communication ports.



## OLED Indicator Function

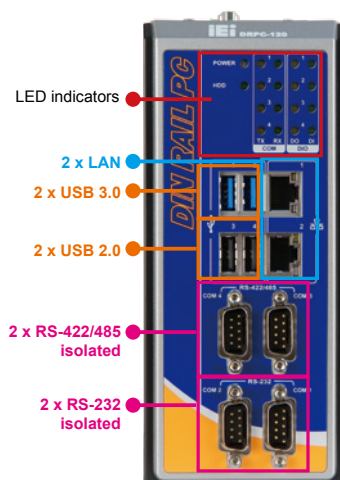
- Programmable OLED Display**  
Users can program their own APIs to show any information by the OLED display.
- Programmable Function Keys**  
Users can program the four keys to control DRPC-100 & OLED display.
- Terminal Screen & Status Display**  
It supports both text format and graphic format.
- Protocol & Demo Source Code Open**  
IEI provides the protocol & demo source code for users to program their own usage.

### DRPC-100/120 OLED indicator

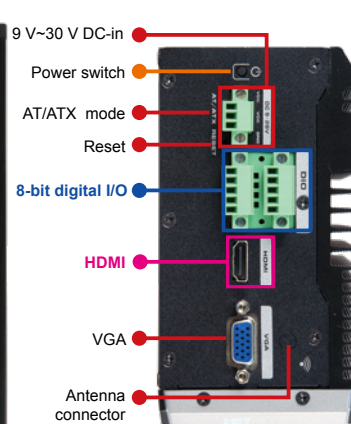


## Fully Integrated I/O

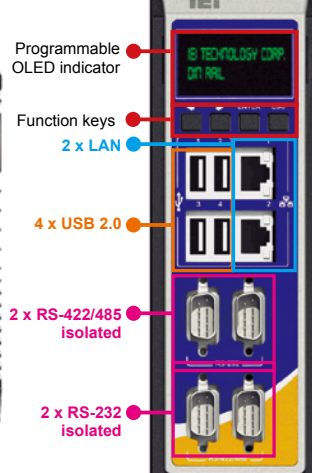
DRPC-120 Front View



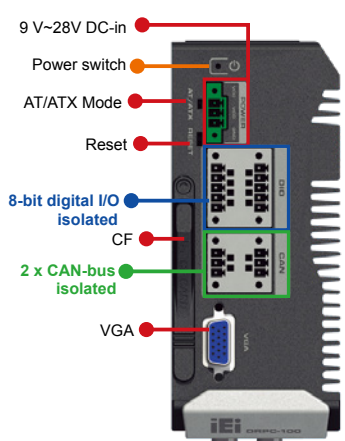
DRPC-120 Top Side View



DRPC-100 Front View



DRPC-100 Top Side View



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## Specifications

| Model Name     |                         | DRPC-120-BT                                                                                                       | DRPC-100-CV                                                                                           |
|----------------|-------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Chassis        | Color                   | Black                                                                                                             | Black                                                                                                 |
|                | Dimensions (WxDxH) (mm) | 74.08 x 140 x 171.5                                                                                               | 59.4 x 140 x 171.5                                                                                    |
|                | System Fan              | Fanless                                                                                                           | Fanless                                                                                               |
|                | Chassis Construction    | Extruded aluminum alloys                                                                                          | Extruded aluminum alloys                                                                              |
| Motherboard    | CPU                     | Intel® Atom™ E3845 1.91 GHz                                                                                       | Intel® Atom™ N2800 1.86 GHz                                                                           |
|                | Chipset                 | SoC                                                                                                               | Intel® NM10                                                                                           |
|                | System Memory           | 1 x 204-pin DDR3L SO-DIMM 2 GB pre-installed (system max: 8GB)                                                    | 1 x 204-pin DDR3 SO-DIMM 2 GB pre-installed (system max: 4GB)                                         |
| IPMI           | iRIS Solution           | 1 x iRIS-2400 (optional)                                                                                          | N/A                                                                                                   |
| Storage        | Hard Drive              | 1 x 2.5" SATA 3Gb/s HDD/SSD bay                                                                                   | N/A                                                                                                   |
|                | CF card                 | N/A                                                                                                               | 1                                                                                                     |
| I/O Interfaces | USB 3.0                 | 2                                                                                                                 | N/A                                                                                                   |
|                | USB 2.0                 | 2                                                                                                                 | 4                                                                                                     |
|                | Ethernet                | 2 x RJ-45<br>1 x PCIe GbE by Intel® I210 controller<br>1 x PCIe GbE by Intel® I211 controller                     | 2 x RJ-45 Realtek 8111E PCIe GbE                                                                      |
|                | COM Port                | 2 x RS-232 (DB-9 w/3KV isolation protection*)<br>2 x RS-422/485 (DB-9 w/3KV isolation protection*)                | 2 x RS-232 (DB-9 w/3KV isolation protection*)<br>2 x RS-422/485 (DB-9 w/3KV isolation protection*)    |
|                | Digital I/O             | 8-bit digital I/O, 4-bit input/4-bit output                                                                       | 1 x Phoenix terminal block w/ 3KV isolation protection<br>8-bit digital I/O, 4-bit input/4-bit output |
|                | CAN-bus                 | N/A                                                                                                               | 1 x Phoenix terminal block w/ 3KV isolation protection, supporting 2-port CAN-bus                     |
|                | Display                 | 1 x VGA, 1 x HDMI                                                                                                 | 1 x VGA                                                                                               |
|                | Resolution              | Up to 1920 x 1200 @ 60Hz                                                                                          | Up to 1920 x 1200 @ 60Hz                                                                              |
|                | Wireless                | 1 x 802.11a/b/g/n/ac (optional)                                                                                   | 1 x 802.11a/b/g/n/ac (optional)                                                                       |
|                | Other                   | N/A                                                                                                               | SATA DOM support                                                                                      |
|                | Expansions              | 1 x Half-size PCIe Mini slot (w/o USB signal)<br>1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)** | 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)                                        |
| Power          | Power Input             | 3-pin terminal block: 9 V ~ 28 V DC                                                                               | 3-pin terminal block: 9 V ~ 28 V DC                                                                   |
|                | Power Consumption       | 12 V@ 2.1 A<br>(Intel® Atom™ E3845 with 2 GB memory )                                                             | 12 V@1.85 A<br>(Intel® Atom™ N2800 with 2 GB DDR3 memory)                                             |
| Reliability    | Mounting                | DIN-rail                                                                                                          | DIN-rail                                                                                              |
|                | Operating Temperature   | -20°C ~ 60°C with air flow (mSATA),<br>5% ~ 95%, non-condensing                                                   | -25°C ~ 65°C with air flow (mSATA),<br>5% ~ 95%, non-condensing                                       |
|                | Operating Shock         | Half-sine wave shock 5G, 11ms, 3 shocks per axis                                                                  | Half-sine wave shock 3G, 11ms, 3 shocks per axis                                                      |
|                | Operating Vibration     | MIL-STD-810F 514.5C-2 (with SSD)                                                                                  | MIL-STD-810F 514.5C-2                                                                                 |
|                | Weight (Net/Gross)      | 1.4 kg/2.5 kg                                                                                                     | 1 kg/2 kg                                                                                             |
|                | Safety/EMC              | CE/FCC                                                                                                            | CE/FCC                                                                                                |
| OS             | Supported OS            | Microsoft® 8,<br>Microsoft® Windows® Embedded Standard 7 E                                                        | Microsoft® Windows® Embedded Standard 7 E,<br>Microsoft® Windows® XP Embedded                         |

\* COM port isolation: 3 kV for 1 sec, 2.5 kV for 1 minute

\*\* DRPC-120-QGW-E5-LED/4G-R10 has only one Half-size PCIe Mini slot

## Ordering Information

| Part No.                           | Description                                                                                                                                                                                                                  |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DRPC-120-BTi-E5-OLED/2G-R10</b> | Fanless embedded system, Intel® Bay-Trail E3845 1.91 GHz, TDP 10W, 2GB DDR3L pre-installed memory, one VGA, one HDMI, 8 CH DIO, iRIS-2400 optional, 9 V~28 V DC, OLED indicators, R10, RoHs                                  |
| <b>DRPC-120-BTi-E5-LED/2G-R10</b>  | Fanless embedded system, Intel® Bay-Trail E3845 1.91 GHz, TDP 10W, 2GB DDR3L pre-installed memory, one VGA, one HDMI, 8 CH DIO, iRIS-2400 optional, 9 V~28 V DC, LED indicators, R10, RoHs                                   |
| <b>DRPC-120-QGW-E5-LED/4G-R10</b>  | Fanless embedded system with Intel® Bay-Trail E3845 1.91 GHz, TDP 10W, 4 GB DDR3L pre-installed memory, with QTS-Gateway, 1 x VGA, 1 x HDMI, 8 CH DIO, iRIS-2400 optional, 9 V~28 V DC, LED indicators, RoHs                 |
| <b>DRPC-100-CV-LED-R10</b>         | Extended temperture fanless embedded system with Intel® Atom™ N2800, with 2 GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9 V~28V DC, -20°C to 65°C, LED indeicators, RoHS  |
| <b>DRPC-100-CV-OLED-R11</b>        | Extended temperture fanless embedded system with Intel® Atom™ N2800, with 2 GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9 V~28V DC, -20°C to 65°C, OLED indeicators, RoHS |

## Packing List

|                         |                                   |                      |
|-------------------------|-----------------------------------|----------------------|
| 1 x Utility CD          | 1 x Screw kit                     | 1 x Mounting bracket |
| 1 x One Key Recovery CD | 1 x SATA cable & SATA power cable |                      |

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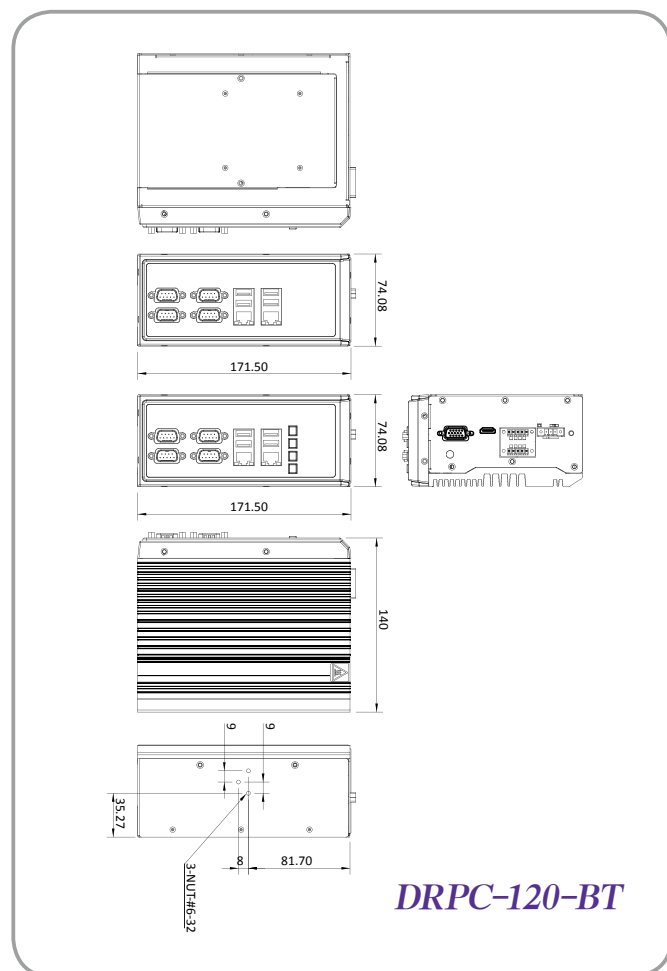
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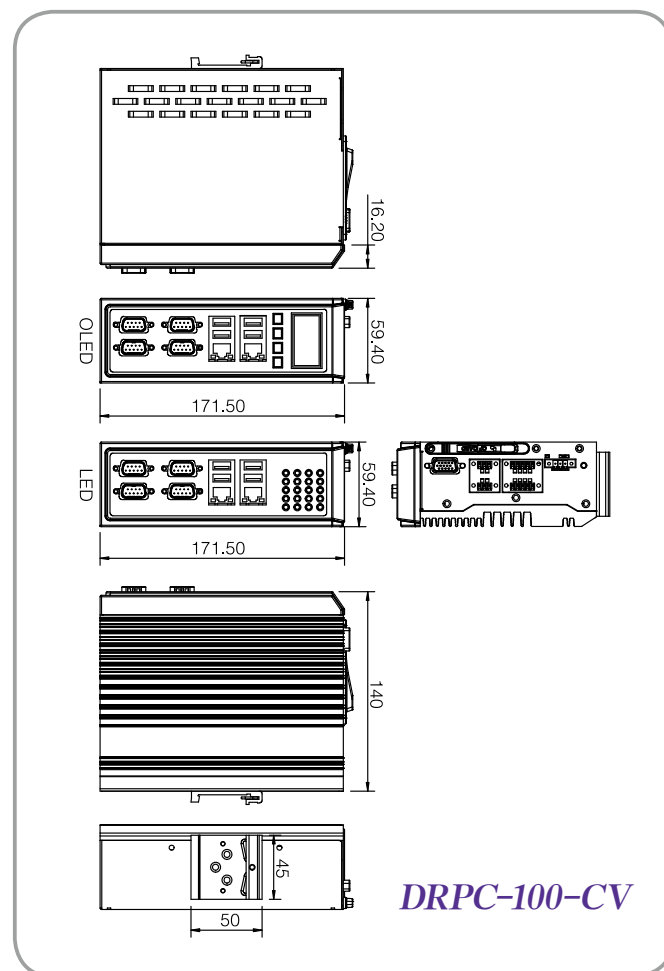
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## Dimensions (Unit: mm)



## Dimensions (Unit: mm)



## Options

### DRPC-120-BT series

| Item                   | Part No.                      | Description                                                                                                                                           |
|------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| OS: Windows Embedded 7 | DRPCCF-120-WES7E-R10 (CD-ROM) | OS Image with Windows® Embedded Standard 7 E for DRPC-120 Series, CD-ROM, RoHS                                                                        |
| Wireless kit           | EMB-WIFI-KIT01-R20            | 1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 250mm RF cable, 2 x Antenna, RoHS |
| Adapter                | 63040-010036-121-RS           | Adapter Power, FSP, FSP036-RBBN2, Vin: 90V~264VAC, 36W, Erp(NO LOAD 0.1W), Vout:12VDC, Φ2.5/Φ5.5/lock, CCL, RoHS                                      |
| Power Cable            | 32102-026500-100-RS           | Power cable 200mm, (A) DC jack to (B) 3-pin terminal block P=3.5                                                                                      |
| Power Cord             | 32702-000400-200-RS           | European power cord                                                                                                                                   |
| DIN-Rail mounting kit  | DK-DRPC-R10                   | Rugged DIN-Rail mounting kit only for DRPC series                                                                                                     |

### DRPC-100-CV series

| Item                                 | Part No.                | Description                                                                                                                                                                                                                                  |
|--------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OS: Win XPE (4GB CF card)            | DRPCCF-100-CV-XPE-R10   | OS Image with XPE, for DRPC-100-CV Series, W/CompactFlash® Memory Card 4GB                                                                                                                                                                   |
| OS: Windows Embedded 7 (4GB CF card) | DRPCCF-100-CV-WES7E-R10 | OS Image with Windows® Embedded Standard 7 E for DRPC-100-CV Series, in 4 GB CompactFlash® card                                                                                                                                              |
| Wi-Fi module                         | 27310-000012-RS         | Wireless LAN module, Wi-Fi with Bluetooth 4.0/3.0+HS, AzureWave, AW-CB161H, IEEE802.11a/b/g/n/ac, 2.412 GHz~2.472 GHz, 5.15 GHz~5.85 GHz, PCIe Mini, a(13dBm), b(16dBm), g(13dBm), n(12dBm), ac(10dBm), 3.3 V, Realtek RTL8821AE, 1T1R, RoHS |
| Antenna                              | 32505-000900-100-RS     | External antenna, WLAN, RG 178,108MM, peak gain 2.0DBI, Exceltek, 2.4 GHz~2.5 GHz/5.15 GHz~5.85 GHz, reverse SMA plug, RoHS                                                                                                                  |
| RF cable                             | 32501-000600-100-RS     | Antenna, RF cable, RF cable, outside diameter:1.13 mm, 500 mm, 0 GHz~6 GHz, (A) Reverse SMA jack, one nut + two washer, (B) I-PEX, RoHS                                                                                                      |
| Adapter                              | 63040-010036-121-RS     | Adapter Power, FSP, FSP036-RBBN2, Vin:90~264VAC, 36W, Erp(NO LOAD 0.1W), Vout:12VDC, Φ2.5/Φ5.5/lock, CCL, RoHS                                                                                                                               |
| Power cable                          | 32102-026500-100-RS     | Power cable 200mm, (A) DC jack to (B) 3-pin terminal block P=3.5                                                                                                                                                                             |
| Power cord                           | 32702-000400-200-RS     | European power cord                                                                                                                                                                                                                          |
| DIN-rail mounting kit                | DK-DRPC-R10             | Rugged DIN-Rail mounting kit only for DRPC series                                                                                                                                                                                            |

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